

Corporate Performance, Corporate Takeovers, and Management Turnover

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ABSTRACT

This paper examines the hypothesis that an important role of corporate takeovers is to discipline the top managers of poorly performing target firms. We document that the turnover rate for the top manager of target firms in tender offer-takeovers significantly increases following completion of the takeover and that prior to the takeover these firms were significantly under-performing other firms in their industry as well as other target firms which had no post-takeover change in the top executive. We interpret the results to indicate that the takeover market plays an important role in controlling the nonvalue maximizing behavior of top corporate managers.

ECONOMIC ANALYSIS IDENTIFIES TWO broad motives for value maximizing corporate takeovers. Either they are undertaken to achieve synergies between the bidder and the target firms, or they are undertaken to discipline the target firm's managers. In synergistic takeovers, gains are generated by efficiencies that result from combining the physical operations of the bidder and the target firm. In disciplinary takeovers, gains can be achieved without combining the physical operations of the two firms. Rather, the gains are generated by altering the nonvalue maximizing operating strategies of the target firm's managers.¹ Some observers give more weight to the importance of takeovers as a disciplinary mechanism than do others, but, regardless of the weight assigned to takeovers in performing this task, it is generally presumed that firms that are performing poorly are more likely to be the target of a disciplinary takeover than are firms that are performing well.²

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¹Nonvalue maximizing behavior on the part of the target's managers can take a variety of forms. For example, it could include the excessive consumption of corporate perquisites, excessive compensation, overpayment for supplies and raw materials, or the deployment of corporate resources to self-enriching or self-aggrandizing projects. It could also be that the target's managers are simply ineffective at or incapable of operating the target firm efficiently.

²See, for example, Fama (1980), Manne (1965), and Morck, Shleifer and Vishny (1988) for discussions of the disciplinary role of corporate takeovers.

In this paper, we investigate the disciplinary role of corporate takeovers with a sample of 253 successful tender offer-takeovers that occurred over the period 1958 through 1984. For this sample, a takeover is classified as disciplinary if there is turnover of the top manager of the target firm shortly after the takeover. All others are classified as nondisciplinary. With this classification scheme, we conduct two sets of empirical tests. First, we test whether the pretakeover cumulative market model prediction errors and cumulative industry-adjusted returns of the sample of disciplinary takeovers are significantly less than those of the nondisciplinary sample. Second, we test whether the cumulative market model prediction errors and cumulative industry-adjusted returns for the sample of disciplinary takeovers are significantly less than zero. If the results indicate that disciplinary takeover targets are performing poorly prior to the takeover, they support the contention that the takeover market helps to protect shareholders from the actions of nonvalue maximizing managers.

We first document that the turnover rate for the top executive of target firms increases dramatically following successful tender offer-takeovers. For example, during the period that begins with the announcement date of the tender offer and ends 12 months after completion of the takeover (an average of 14 months), the rate of turnover for the top executive of target firms is 41.9%, compared with an average annual turnover rate of 9.9% during the 5-year period preceding the offer.

We then evaluate the pre-takeover performance of our sample of takeover targets. Over the period from 48 months before through 3 months before the tender offer, the cumulative market model prediction error for the full sample of takeovers is +4.31% with a *t*-statistic of 1.03. However, when the sample is split into those in which there is turnover in the top executive of the target firm soon after the takeover (the disciplinary sample) and all others (the nondisciplinary sample), both the cumulative market model prediction error and the cumulative industry-adjusted return of the disciplinary group are significantly less than those of the nondisciplinary group. Additionally, for the disciplinary sample, the cumulative market model prediction error is not significantly different from zero, but the cumulative industry-adjusted return is significantly less than zero; For the nondisciplinary sample, the cumulative market model prediction error is significantly greater than zero, but the cumulative industry-adjusted return is not significantly different from zero. These results indicate that, on average, all takeover targets come from industries that are performing well relative to the market and that the targets of disciplinary takeovers are performing poorly within their industry, whereas, the targets of nondisciplinary takeovers are performing about as well as the average firm in their industry. We interpret the results to indicate that the corporate takeover market plays an important role in disciplining top corporate managers.

We also categorize our sample as to whether the takeover was hostile or friendly. Here we find that the turnover rate for the top manager of the target firm is no different in hostile and friendly takeovers. Furthermore, there is no difference between the pre-takeover performance of hostile and

friendly takeovers on the basis of either cumulative market model prediction errors or cumulative industry-adjusted returns.

Finally, we examine the gains to bidders and targets by computing cumulative market model prediction errors over the 41-day interval surrounding the announcement of the takeover bid. These results indicate that there is no significant difference between the gains to bidders in disciplinary and nondisciplinary takeovers, nor is there any significant difference between the gains to target in the two types of takeovers.

Section I of this paper describes the sample of takeovers employed in this study and presents summary statistics on management turnover. Section II provides a brief discussion of the procedures used to measure market model prediction errors and industry-adjusted returns. Section III reports the results of our statistical tests of the pre-takeover cumulative market model prediction errors and the cumulative industry-adjusted returns. Section IV analyzes the gains to the target and bidder firms over the 40-day trading interval surrounding the announcement of the takeover. The final section summarizes and concludes the paper.

I. Data

A. *Corporate Takeovers*

The starting point for compilation of our sample of takeovers was provided by Michael Bradley and E. Han Kim and is described in Bradley (1980) and Bradley, Desai, and Kim (1983). Their sample contains 500 intercorporate tender offers made over the period October 1958 through September 1980. We extend the initial sample through the end of December 1984 using 14D-1 filings reported in the *SEC News Digest*. The result is a sample of 720 tender offers. From this sample, offers are deleted if the target's stock returns are not included in the CRSP monthly returns file (282 offers) or if the target's stock returns are included in the CRSP file, but not over a sufficiently long period prior to the tender offer to estimate market model parameters (86 offers).³

In the analysis that follows, we are concerned with takeovers in which control is transferred following a tender offer. Following Bradley, Desai, and Kim (1983), we define a transfer of control as occurring when a bidding firm owns less than 50% of the target's shares before the tender offer and increases its ownership by at least 15% of the target's shares as a result of the tender offer. A second instance in which a successful takeover is considered to have occurred is if the initial tender offer fails but control is transferred within the next 5 years.⁴ This procedure results in a sample of 253 takeovers.

³We require that at least 24 consecutive monthly returns be available over the period from month -108 through month -49 prior to the tender offer.

⁴Of the 11 control transfers included in the second category, six were by tender offer, two by merger, two by private purchase of shares, and one by proxy fight.

B. Management Turnover

A takeover is classified as disciplinary if there is turnover of the top manager of the target firm shortly after the takeover. The top manager is defined as the individual occupying the position of CEO, or, if the firm has no such position, the president. The starting point for collecting data on management turnover is the initial announcement date of the tender offer. The 12 calendar months prior to the announcement are considered to be year -1. The 12 calendar months prior to that is year -2, and so forth. Year +1 begins with the announcement date and continues for 12 months following completion of the takeover. On average, year +1 encompasses 14 calendar months. Year +2 begins with the first calendar month following the end of year +1 and ends 12 months later.

For each target firm, the individual occupying the position of CEO or president is identified in the *Standard and Poor's Register of Corporations, Directors, and Executives* (hereafter, the *Register*) for each of the 5 years prior to the tender offer and for the 2 years following completion of the takeover. After a takeover, some firms are not listed in the *Register*. In these cases, the *Wall Street Journal Index (WSJI)* is used to try to determine the post-takeover experience of the top executive. If the turnover experience still cannot be identified, no management change is recorded for that firm in the post-takeover period.⁵

Panel A of Table I presents summary statistics of top executive changes. For years -5 through -1, the annual rate of change in the top manager

Table I
Top Manager Turnover for Target Firms Following Successful Tender-Offer Takeovers, 1958-1984

Panel A. Frequency distribution of changes in the top manager, either CEO or President, for the 5 years prior to the announcement of the takeover and for the 2 years following completion of the takeover for 253 tender offer targets over the period 1958-1984.^a

| Time Period Relative to Takeover | Rate (Number) of Change(s) in Top Manager |
|--|--|
| Year -5 | 11.1% (28) |
| Year -4 | 11.1% (28) |
| Year -3 | 9.1% (23) |
| Year -2 | 7.1% (18) |
| Year -1 | 11.1% (28) |
| Year +1 | 41.9% (106) |
| Year +2 | 19.0% (48) |

⁵For 11 firms, no listing is available in the *Register* for years +1 and +2 and no turnover experience is recorded in the *WSJI*. Thirteen firms are listed in the *Register* in year +1, but are not listed in year +2. Of these 13 firms, 9 recorded a change in the top manager in year +1, while 4 of the firms experienced no change.

Table I—Continued

Panel B. Frequency distribution of reasons for 111 departures of the top manager in 104 successful takeover target firms as indicated in the *Wall Street Journal*.

| Reason Cited | Percent (Number) Of Top Managers Departing | |
|---|--|-----------|
| | Time Period Relative To The Takeover | |
| | Year + 1 | Year + 2 |
| No reason given | 15.7% (13) | 21.4% (6) |
| Normal retirement | 7.2% (6) | 17.8% (5) |
| Accepted high-level position in acquiring firm | 3.6% (3) | 3.6% (1) |
| Change in control | 53.0% (44) | 25.0% (7) |
| Fired, poor performance cited | 3.6% (3) | 7.1% (2) |
| Policy differences | 2.4% (2) | 7.1% (2) |
| Early retirement | 4.8% (4) | 7.1% (2) |
| Other personal or business interests | 7.2% (6) | 7.1% (2) |
| Took similar position with another firm | 2.4% (2) | 3.6% (1) |

Panel C. Frequency distribution of top managers arriving at 253 successful takeover target firms classified according to previous affiliation.^b

| Time Period Relative to Takeover | Total Number Of Changes In Top Manager | Percent (Number) Of Top Managers Replaced By: | | Percent (Number) Of Departing Top Managers Not Replaced |
|--|--|---|------------|--|
| | | Outsider | | |
| | | Outsider | Insider | |
| Year + 1 | 106 | 55.7% (59) | 34.0% (36) | 10.4% (11) |
| Year + 2 | 48 | 54.2% (26) | 29.2% (14) | 16.7% (8) |

^aYears -5 through -1 are the years preceding the announcement of the takeover. Year +1 begins with the initial tender offer announcement and ends 12 months after completion of the takeover. The mean length of Year +1 is 14 months. Year +2 begins 1 year after completion of the takeover and continues for the following 12 months. The turnover rate is calculated as the number of top manager changes in a year divided by 253.

^bAn outsider is an individual who was not employed by the target firm at the time he assumed the top manager position. An insider is an individual who was employed by the target firm at the time he assumed the top manager position. "Not replaced" means the incumbent top manager departed the top manager position and no replacement was named.

position ranges from 7.1% to 11.1% with an average of 9.9%. For year +1, the rate of change jumps to 41.9%.⁶ In year +2, the rate of change in the top manager position is 19.0%, still almost twice the average annual rate of turnover in the pretakeover years. Those firms which experience a change in the top manager position are placed in the disciplinary sample. All others are placed in the nondisciplinary sample. In all, 141 takeovers are classified as

⁶If year +1 begins with the completion of the takeover, the rate of change in the top executive is 37.5%. The rate of change for the period beginning with the announcement and ending with the completion date (a period of 2 months on average) is 4.3%.

disciplinary and 112 are classified as non-disciplinary. The 141 targets of disciplinary takeovers had 154 changes in the top manager during the 20-year interval following the takeover. Nine firms experienced two changes in the top executive and two firms experienced three changes.

We recognize that our classification scheme for disciplinary and nondisciplinary takeovers is not perfect. Some management changes following takeovers reflect "normal" turnover and should have no relation to pre-takeover corporate performance. Elimination of these instances of turnover should provide more precise identification of disciplinary management changes. We consider two methods for eliminating management changes unrelated to the takeover.

The first method attempts to eliminate such cases by examining the stated motives for the top manager's departure. In many instances, when the top manager departs the firm, either the target or the successful bidder issues an announcement of the departure and cites or implies the reason for it. If these announcements are interpreted literally, only those takeovers in which the public announcement indicates that the change has not occurred for "normal" reasons should be identified as disciplinary management changes, and only in those takeovers should the targets have been performing poorly prior to the takeover.

To gather information on the motives for management turnover, *Wall Street Journal (WSJ)* articles describing management changes following the takeovers were collected. Articles announcing the change in the top manager are available in 111 of the 154 instances in which the top manager departed the target firm during the period beginning with the announcement date and ending 2 years following completion of the takeover. The reasons indicated for the departures are placed into one of the nine categories listed in Panel B of Table I. The reason most frequently indicated for the top executive's departure is "change in control", which accounts for 51 of the 111 entries. There are an additional 20 cases in which the reasons for departure include "early retirement", "policy differences", "fired", "other personal or business interests", and "took position with another firm". We combine these categories to comprise a more refined sample of disciplinary takeovers. The nondisciplinary sample, then, contains 126 firms composed of the 112 target firms which experienced no turnover in the top manager over the 2 years following the takeover and the 14 firms in which the top manager departed for "normal retirement" or for a "high-level position within the acquiring firm".⁷

The second method for eliminating instances of nondisciplinary management turnover categorizes takeover targets according to the origins of the new top manager. Furtado and Rozeff (1987), Reinganum (1985), and Vancil (1987) report that most appointments to the top manager position come from

⁷There are 19 instances in which a *WSJ* article reported a departure in the top executive but did not cite a reason for it and 37 takeovers in which a departure occurred but no article appeared in the *WSJ* announcing it.

inside the firm. Thus, the appointment of an outsider following a takeover is more likely to be indicative of a disciplinary management change than is the appointment of an insider. If so, then only targets in which an outsider is appointed to the top manager position should have been performing poorly prior to the takeover.

Data on the origins of the arriving top managers are summarized in Panel C of Table I.⁸ In year +1, 55.7% of the arriving top managers are outsiders, while in year +2, the rate is 54.2%. These rates are high in comparison with other studies of top management changes involving firms that were not takeover targets. For example, Reinganum (1985) reports that in 158 cases in which a departure and an arrival of a top executive were announced simultaneously an outsider replaced the departing top executive 13% of the time, while Vancil (1987) reports that outsiders are named in 25% of his sample of CEO changes.⁹

The dramatic increase in the turnover rate of top managers following takeovers, along with the high rate of instances in which outsiders are named to the top manager position following a takeover, indicates that takeovers are an important device for altering the top management of target firms, but it does not indicate whether turnover is related to poor corporate performance. It is to that task that we turn next.

II. Measuring Corporate Performance

Two methodologies are used to evaluate the pre-takeover performance of the target firms. The first is the traditional market model procedure, as described in Brown and Warner (1980), among others. Market model parameters are estimated over the period beginning 108 months prior to the tender offer and ending 49 months prior to the tender offer. If security returns are not available for this entire 60-month period, a shorter interval, but not less than 24 months, is used. The market index employed is the equally weighted index of all stocks contained in the CRSP monthly returns file.¹⁰ With the estimated market model parameters, average monthly prediction errors (PEs) and cumulative average prediction errors (CPEs) are computed over various

⁸For each arrival of a top manager in a successful takeover target, the *Register* was searched to determine whether he had previously been employed by the target firm or whether he arrived from outside the firm. Depending upon their previous affiliation, arriving executives are classified as either "insiders" or "outsiders".

⁹One interesting sidelight of the data collection effort is the evolution of the title of CEO over time. Prior to 1969, less than half of the target firms in any given year listed an individual with the title of CEO at the time of the tender offer. By 1984, 95% of the target firms designated an individual as CEO. A second interesting feature of the data is the frequency with which a single individual holds all of the senior executive titles on the date of the tender offer. For example, in 64% of the 75 firms with only two senior executive positions, one individual held both. In 22% of the 157 firms with three senior management positions, one individual held all three.

¹⁰All tests were replicated with a value-weighted index, and the results are not qualitatively different.

time periods prior to the tender offer announcement. Statistical tests are performed to determine the significance of the PEs and CPEs.

The second procedure involves computation of industry-adjusted returns (IARs) and cumulative industry-adjusted returns (CIARs) and is motivated by the finding of Morck, Shleifer, and Vishny (1988) (MSV) that there is an industry effect in the pre-takeover performance of the targets of hostile takeovers. Computation of the industry-adjusted returns is a three-step procedure. First, for each month, over the interval from 1952 through 1984, all firms on the CRSP file (excluding the 253 target firms) are grouped into portfolios according to their 4-digit SIC codes and equally weighted monthly returns are computed for each portfolio. Second, the appropriate edition of the *Register* is used to identify all of the 4-digit SIC codes of each target firm during the year in which the tender offer is announced. Third, for each target firm, the industry portfolios for each of its 4-digit SIC codes are combined, on an equally weighted basis, to form an industry index for that firm. If the CRSP file contains no firms in any of the 4-digit SIC categories of a target firm, the first three digits of that SIC code are used. If no three-digit match is possible, the first two digits are used, and if no two-digit match is possible, a single digit is employed.

IARs are computed by subtracting the return of the industry index from the return of the target firm during the same calendar month. CIARs are computed by summing the IARs. Statistical tests are performed to determine the significance of the IARs and CIARs. The procedures used to conduct the significance tests on the CPEs and CIARs are those described in Brown and Warner (1980).

III. Results

A. Disciplinary versus Nondisciplinary Takeovers and Pre-Takeover Target Performance

We first compute CPEs and CIARs for the full sample of 253 successful takeover target firms during the period from 48 months before until 3 months before the tender offer announcement month, for the 2-month interval immediately preceding the tender offer announcement month, and for the announcement month. Henceforth, the period encompassing months -48 through -3 is referred to as the "pre-takeover" period. Months -2 and -1 are excluded from the pre-takeover period because prior studies by Dodd and Ruback (1978), Kummer and Hoffmeister (1978), and Jarrell and Bradley (1980) suggest that leakage of information regarding takeovers affects security returns during this period. Month 0 is excluded because this interval includes the gains due to the takeover announcement and does not reflect pretakeover performance.

During the pre-takeover period, there is a notable difference between the CPEs and CIARs of the full sample. As shown in the first row of Table II, the CPE during the pre-takeover period is +4.31% with a *t*-statistic of 1.03, while the CIAR is -6.64% with a *t*-statistic of -1.38. Although the CPEs and CIARs are not significantly different from zero, the evidence suggests

Table II
**Pre-Takeover Cumulative Abnormal Returns for Disciplinary
 and Nondisciplinary Takeover Targets**

Cumulative average prediction errors (CPE) and cumulative average industry-adjusted returns (CIAR) over months -48 through -3 relative to the announcement of the takeover for 253 successful takeover target firms classified according to turnover in the top manager during the 2 years following completion of takeovers occurring between 1958 and 1984. The top manager is defined as the individual occupying the CEO position, or, if the firm does not have a CEO position, the presidency. (*t*-statistics in parentheses.)

| Sample | Number of Firms | CPE (in percent) | CIAR (in percent) |
|--|--------------------|---------------------------------|----------------------|
| 1. Full sample of takeover targets | 253 | +4.31 (1.03) | -6.64 (-1.38) |
| 2. Takeover targets with turnover in the top manager | 141 | -2.93 (-0.51) | -15.38 (-2.76**) |
| 3. Takeover targets with no turnover in the top manager | 112 | +13.41 (2.64**) ^d | +4.35 (0.69) |
| 4. Takeover targets with reasons indicated for top manager turnover as change in control, fired, policy differences, early retirement, personal or business interests, or took similar position with another firm ^a | 71 | -9.11 (-1.39) | -21.29 (-3.36**) |
| 5. Takeover targets with no turnover in top manager or turnover with reasons for turnover indicated as normal retirement or accepted high-level position within the acquiring firm | 126 | +13.22 (2.84**) | +3.28 (0.55) |
| 6. Takeover target with top manager replaced by an outsider ^b | 77 | -0.96 (-0.15) | -16.76 (-2.69**) |
| 7. Takeover targets with top manager replaced by an insider ^c | 46 | -5.07 (-0.51) | -14.28 (-1.25) |
| 8. Takeover targets with no change in the top manager, but with a change in the chairman or president | 36 | +11.13 (1.13) | +4.34 (0.38) |

^aReasons as indicated in the *Wall Street Journal*.

^bAn outsider is an individual who was not employed by the target firm at the time he assumed the top manager position.

^cAn insider is an individual who was employed by the target firm at the time he assumed the top manager position.

^d**indicates significantly different from zero at the 0.01 level with a one-tailed test of significance.

*indicates significantly different from zero at the 0.05 level with a one-tailed test of significance.

that, on average, all target firms are performing better than the market, but they are performing worse than their industry peer group.¹¹ These statistics suggest that there is an industry effect in the pre-takeover performance of

¹¹When the value-weighted index is used the CPE is significantly greater than zero.

tender offer targets. To investigate this issue further, we compute the average CPE for the firms comprising the targets' industry indexes over the pre-takeover period of the corresponding target firm. For the firms in the industry index, the pre-takeover CPE is +6.11% with a *t*-statistic of 3.86. Thus, on average, tender offer-takeover targets come from industries that are performing well relative to the market.

During the period from month -2 through -1, the CPE for the full sample of takeover targets is +6.36% (*t*-statistic = 7.26) and the CIAR is +6.05% (*t*-statistic = 6.17). Thus, over the 20-month period prior to the tender offer announcement, excess returns are unambiguously positive, and they are very similar in magnitude across the two methodologies employed. The same is true during the announcement month, wherein the PE is +29.68% (*t*-statistic = 47.91) and the IAR is +28.71% (*t*-statistic = 41.40).

Rows 2 and 3 of Table II present CPEs and CIARs for the 141 target firms which experienced one or more changes in the top manager in the 2 years following the takeover (the disciplinary sample) and the 112 firms with no turnover in the top manager during the same interval (the nondisciplinary sample). The difference between the two samples is dramatic. During pre-takeover period, the CPE for the disciplinary sample is -2.93% (*t*-statistic = -0.51); for the nondisciplinary sample, it is +13.41% (*t*-statistic = 2.64). The difference between the CPEs of the two groups is -16.34%, which, with a *t*-statistic of -2.33, is significantly different from zero at the 0.01 level. The CIARs present a picture similar to that of the CPEs, with one major difference. As with the CPEs, the CIARs during the pre-takeover period are significantly different between the two samples. However, with a *t*-statistic of -2.76, the CIAR of -15.38% for the disciplinary sample is significantly less than zero, whereas, the CIAR of the nondisciplinary sample is +4.35% which, with a *t*-statistic of 0.69, is not significantly different from zero. These results indicate that, in the pre-takeover period, firms in the disciplinary sample performed significantly worse than their industry average but that firms in the nondisciplinary sample performed about as well as their industry peer group.

The evidence indicates that the targets of takeovers in which there is a change in the top manager soon after the takeover are, on average, performing significantly worse than those target firms in which there is no change in the top manager. This is true whether market model prediction errors or industry-adjusted returns are considered. Apparently bidders distinguish between targets on the basis of their pre-takeover performance when deciding to remove the top managers of target firms. On this basis, the data support the hypothesis that takeovers are a device for disciplining the top managers of poorly performing firms. However, over the same pre-takeover period, the cumulative market model prediction error for the sample of targets which experienced a change in the top manager is not significantly less than zero, whereas, the cumulative industry-adjusted return is significantly negative. On this basis, the conclusions drawn depend upon the performance benchmark employed. On the one hand, if the relevant benchmark is the industry

Table III
Cumulative Average Prediction Errors and Cumulative Industry-Adjusted Returns for Various Time Periods Relative to the Tender Offer

| Time Period (in months relative to the tender offer) | CPE (in percent) | | | CIAR (in percent) | | |
|---|-------------------------------------|---|--------------------|-------------------------------------|---|--------------------|
| | Disciplinary Sample (N = 141) | Non- Disciplinary Sample (N = 112) | Difference | Disciplinary Sample (N = 141) | Non- Disciplinary Sample (N = 112) | Difference |
| -48 to -25 | -0.81 (-0.21) | +7.64 (2.08*) ^a | -8.46 (-1.67*) | -10.08 (-2.51**) | -0.05 (-0.01) | -10.03 (-1.89*) |
| -24 to -3 | -2.16 (-0.54) | +5.72 (1.63) | -7.88 (-1.63) | -5.30 (-1.38) | +4.40 (1.00) | -9.70 (-1.92*) |
| -12 to -3 | -1.71 (-0.64) | +6.75 (2.85**) | -8.46 (-2.59**) | -4.06 (-1.56) | +4.23 (1.42) | -8.29 (-2.43**) |

*** indicates significantly less than zero at the 0.01 level with a one-tailed test of significance.

* indicates significantly less than zero at the 0.05 level with a one-tailed test of significance.

peer group of the target firm, the results are consistent with the view that takeovers are a mechanism for removing the top managers of poorly performing firms. On the other hand, if the market model is used as the benchmark, the evidence suggests that managers are replaced in firms that are performing about as well as would be expected. Perhaps the appropriate interpretation of the results is that, on average, the targets of successful tender-offer takeovers are in industries that are performing well, and in those targets that are performing worse than the average firm in their industry, the top executive is more likely to be removed from office. If we assume that one important mechanism for correcting nonvalue maximizing behavior by the managers of target firms is to remove them from office, the results are consistent with the view that the takeover market plays an important role in disciplining top corporate executives.¹²

To determine the sensitivity of our results to alternative classification schemes for disciplinary and nondisciplinary takeovers, CPEs and CIARs are also calculated for the sample of 71 takeovers for which the *WSJ* indicates that the reason for the top executive's departure was "change in control", "early retirement", "policy differences", "fired," "other personal or business interests", and "took position with another firm", and for the sample of 126

¹²The results for various subperiods of the months -48 to -3 interval, presented below, are consistent with those for the full pre-takeover period. The CPE (CIAR) of the disciplinary sample is always less than the CPE (CIAR) of the nondisciplinary sample. The difference between the two ranges from -7.88% (-8.29%) to -8.46% (-10.03%). This difference is significant at the 0.05 level for two of the three CPEs and for all three CIARs considered. The CPEs and CIARs for the subperiods are as shown in Table III.

targets which either experienced no turnover in the top manager over the 2-year interval following the takeover or in which the top manager departed for "normal retirement" or for a "high-level position within the acquiring firm" according to the *WSJ* articles. The first of these samples now becomes our disciplinary sample and the second becomes our nondisciplinary sample.

The pre-takeover CPEs and CIARs for these two samples, which are reported in Table II rows 4 and 5, respectively, are similar to those of our original classification scheme. The CPE of the disciplinary sample is -9.11% , significantly less than the $+13.22\%$ CPE of the non-disciplinary sample ($t = -2.33$) but not significantly less than zero ($t = -1.39$). The CIAR of the disciplinary sample is -21.29% which is significantly less than the $+3.28\%$ of the non-disciplinary sample ($t = -3.45$). It is also significantly less than zero ($t = -3.36$). Thus, refining our classification scheme according to the stated motive for management turnover yields somewhat stronger results which reinforce our basic conclusions.

As a second sensitivity test, the sample of 141 targets that experienced a change in the top manager during the post-takeover period is partitioned into three subsamples. The first contains the 77 firms in which an outsider is named as the replacement for the top manager, the second contains the 46 firms in which an insider is appointed as the replacement, and the third contains 18 firms in which the top manager departs, but no replacement is named. Rows 6 and 7 of Table II present CPEs and CIARs for the first two of these groups. The pre-takeover CPE and CIAR for the sample in which an outsider replaced the top manager are of approximately the same magnitude and are not significantly different from those of the sample in which an insider replaced the departing top executive and both are, of course, similar to the original sample of disciplinary takeovers. These results indicate that takeovers in which the top manager is replaced are fundamentally disciplinary regardless of the origin of the new top executive. They also suggest that once the bidder is successful in taking control of the target and decides to replace the top executive, a search to find the best possible replacement takes place in both the external labor market and the labor market within the target firm. The winning candidate is then selected from the set of all possible candidates, regardless of his previous affiliation.

Our analysis has focused on turnover in the top executive position. However, in 36 takeovers, the individual that we have identified as the top executive remains in place for 2 years following the takeover, but there is turnover in another top executive position—either the chairman of the board or the president—of the target firm during this period. The pre-takeover CPEs and CIARs for these firms, which are reported in row 8 of Table II, are similar to those for the sample with no change in the top manager. Specifically, the CPE is $+11.13\%$ and the CIAR is $+4.35\%$, and neither is significantly different from zero. These results indicate that when a bidder decides to change the nonvalue maximizing behavior of a target firm, it is the top manager who is replaced rather than some other senior executives, although in many instances when there is a change in the top manager, there is turnover in other top executive positions as well.

B. Hostile versus Friendly Takeovers and Pre-Takeover Target Performance

Morck, Shleifer, and Vishny (1988) (MSV) conjecture that the motive for a takeover (synergistic or disciplinary) determines its character (friendly or hostile). They classify 82 corporate takeovers of *Fortune* 500 firms that occurred over the period 1981 through 1985 as either "hostile" or "friendly" and postulate that disciplinary takeovers are more likely to be hostile, and synergistic takeovers are more likely to be friendly. They report that the targets of hostile takeovers grow more slowly, invest more of their income, and have lower Tobin's-Q ratios than the universe of *Fortune* 500 companies. Moreover, the targets of hostile takeovers are concentrated in low-Q industries. That is, the targets of hostile takeovers are poor performers within poorly performing industries. The targets of friendly takeovers, on the other hand, are indistinguishable in terms of their performance characteristics from the universe of *Fortune* 500 firms.

To assess the ability of the hostile/friendly classification scheme to distinguish targets based on pre-takeover abnormal returns and top executive turnover, we classify the takeovers in our sample as hostile or friendly using the same criteria as MSV—a takeover is classified as hostile if the initial reaction by target management is to resist the tender offer.¹³ All others are classified as friendly. Approximately half of the takeovers are classified as hostile (127) and half as friendly (126).

Panel A of Table IV presents summary statistics on the rate of turnover in the top manager of the hostile and friendly samples. For both samples, the rate of turnover in the top executive increases dramatically in the 2 years following completion of the takeover. However, the rate of turnovers does not differ significantly between the two samples either before or after the takeover.

Panel B presents the pre-takeover CPEs and CIARs for the hostile and friendly samples. For both samples the CPE is positive, but not significantly different from zero, and for both samples the CIAR is negative, but not significantly different from zero. Additionally, neither the CPEs nor the CIARs for the two samples are significantly different from each other. In sum, the pre-takeover CPE and CIAR for both the hostile and friendly samples are very similar to those for the full sample of takeovers and to each other. Thus, for this sample of takeover targets, either the hostile versus friendly classification scheme does not distinguish between disciplinary and non-disciplinary takeovers or the pre-takeover performance of the targets of disciplinary takeovers does not differ from the pre-takeover performance of the targets of nondisciplinary takeovers.¹⁴

¹³Resistance includes such actions as statements in the press urging shareholders to reject the offer, threatened or actual lawsuits by management to block the offer, and active search by management for a "white knight" to "rescue" the target.

¹⁴In this regard, our results are similar to those of Kummer and Hoffmeister (1978). They categorize their sample of successful takeovers according to whether the target was passive in response to the tender offer or resisted it. For the interval from 40 months before through 3 months before the tender offer, the cumulative average excess return for their passive sample (-5.0%) is not significantly different from that of the resistance sample (-7.5%).

Table IV
Pre-Takeover Cumulative Abnormal Returns for Hostile and Friendly Takeover Targets

Summary statistics on top manager turnover and pre-takeover cumulative average prediction errors (CPE) and cumulative industry-adjusted returns (CIAR) for 253 successful takeover targets classified as hostile or friendly during the period 1958 through 1984. Years -5 through -1 are the years preceding the announcement of the takeover. Year +1 begins with the initial tender offer announcement and ends 12 months after completion of the takeover. Year +2 begins 1 year after completion of the takeover and continues for the following 12 months. Pre-takeover CPEs and CIARs are calculated over the period from 48 months before through 3 months before the initial announcement of the tender offer.

Panel A. Frequency distribution of changes in the top manager by time period relative to the takeover.

| Time Period Relative to Takeover | Rate (Number) of Change(s) in Top Manager | |
|--|--|-----------------------|
| | Hostile Takeovers | Friendly Takeovers |
| Year -5 | 8.7% (11) | 13.5% (17) |
| Year -4 | 9.4% (12) | 12.7% (16) |
| Year -3 | 10.2% (13) | 7.9% (10) |
| Year -2 | 5.5% (7) | 8.7% (11) |
| Year -1 | 9.4% (12) | 12.7% (16) |
| Year +1 | 42.5% (54) | 41.3% (52) |
| Year +2 | 21.3% (27) | 16.7% (21) |

Panel B. Pre-takeover CPEs and CIARs for hostile and friendly takeover targets.
(*t*-statistics in parentheses.)

| Sample | Number of Firms | CPE (in percent) | CIAR (in percent) |
|---------------------------------|--------------------|---------------------|----------------------|
| Full sample of takeover targets | 253 | +4.31 (1.03) | -6.64 (-1.38) |
| Hostile takeover targets | 127 | +6.45 (1.12) | -8.45 (-1.38) |
| Friendly takeover targets | 126 | +2.15 (0.39) | -4.82 (-0.84) |

IV. Gains to Bidders and Targets

Bradley, Desai, and Kim (1988) analyze the total gains in tender offers and the divisions of those gains between bidders and targets. They report that the gains to bidders and targets are related to competition in the takeover market. Specifically, in successful tender offers in which more than one firm bids for a target, on average, the winning bidder experienced lower abnormal returns during the announcement period than when only a single firm makes a bid. But, target firms earn higher abnormal returns over the announcement interval in multiple bidder contests than do targets in contests in which only a single bidder is present.

Economic analysis makes no predictions about the total gains in disciplinary and non-disciplinary takeovers. However, there are (at least) two alternative hypotheses regarding the relative gains to bidders and targets. One hypothesis is that in synergistic takeovers these are likely to be fewer multiple bidder contests than in disciplinary takeovers because there are fewer firms that can benefit from a combination with the physical operations of the target, whereas many firms can implement a change in operating strategy by removing nonvalue maximizing managers of the target firm. This line of reasoning predicts more competition in disciplinary takeovers and, as a consequence, lower bidder returns and higher target returns than in synergistic takeovers.

Alternatively, removing the inefficient managers of a nonvalue maximizing target may be necessary, but not sufficient to generate gains in a disciplinary takeover. Rather, it may be that the gains come from installing management who can alter the target's operating strategies. In this case, the bidder must have some industry-specific and/or firm-specific knowledge to recognize the opportunity for improvement that will come about by changing management. Secondly, the bidder must be able to identify capable replacement managers. Knowledge of this sort may be as narrowly available as are opportunities to generate synergistic gains from the physical combination of the operations of the two firms. If so, this line of reasoning predicts that the frequency of multiple and single bidder contests will be the same in disciplinary and synergistic takeovers and that bidder returns will be the same in the two types of takeovers, as will target returns.

To examine these hypotheses, data were gathered on the number of active bidders in each takeover contest. There was more than one bidder in 31% of the takeovers in which the top executive departed in years +1 or +2. There was more one bidder in 24% of the takeovers in which there was no turnover in the top executive for 2 years following the takeover. These fractions are not significantly different from each other at the 0.10 level.

To analyze the gains to targets and bidders, the CPE is calculated for the period from 20 trading days before through 20 trading days after the tender offer announcement day. The CPE over the 41-day interval to target firms in which the top manager is replaced during the 2-year period following the takeover is +31.33% ($t = 17.18$); for the sample with no turnover in the top manager, the CPE is +33.77% ($t = 26.50$). For the bidders in disciplinary takeovers, the CPE over this period is +2.23% which, with a t -statistic of 1.18, is not significant different from zero. In nondisciplinary takeovers, the CPE is +3.99% which, with a t -statistic of 2.73, is significantly different from zero at the 0.05 level. However, the difference in the CPEs of the two samples is +1.76% which is not significant at the 0.10 level. Thus, our results indicate that the gains to the targets and to the bidders as a result of takeover appear to be the same regardless of whether the takeover is disciplinary or nondisciplinary and that the degree of competition among bidders as measured by the number of single- and multiple-bidder contests is the same in the two types of takeovers.

V. Concluding Remarks

It has been argued that the takeover market plays an important role in disciplining senior corporate executives. This role is twofold. First, potential bidders monitor the performance of top corporate managers, and the possibility of a takeover serves as a threat which minimizes their non-value maximizing behavior. In this way, the takeover market plays an important role in controlling corporate managers and aligning their incentives with stockholders' interests. Second, as with all threats, there are occasions on which this threat must be carried out. In some instances, the threat of a takeover (along with internal control mechanisms) is not sufficient to control the nonvalue maximizing behavior of corporate managers.¹⁵ In those cases, the threat is fulfilled: A bidder takes control of the firm and corrects the nonvalue maximizing behavior of existing management. One important way in which the bidder can accomplish this objective is to replace the top executive(s) of the target firm.

The evidence in this paper is consistent with the argument that the takeover market plays an important role in disciplining top corporate executives. First, our data indicate that turnover in the top manager position of target firms increases significantly following takeovers. Second, there is a strong link between top executive turnover and the pre-takeover performance of target firms. The evidence on the pre-takeover performance of target firms indicates the following: On average, all tender offer-takeover targets come from industries that are performing well relative to the market. Those targets in which the top manager is not replaced following the takeover are performing about as well as the average firm in their industry and are thus performing well relative to the market. Contrarily, those targets in which the top manager departs shortly after the takeover are performing significantly worse than the average firm in their industry, but are not performing significantly worse than the market. In turn, the targets of takeovers in which the top manager is replaced are performing significantly worse than the targets in which the top manager remains in place following the takeover. Overall, these results are consistent with the argument that takeovers play an important role in controlling corporate managers and aligning their incentives with stockholders' interests.

We also classify takeovers according to whether they began hostile or friendly. For both samples, the rate of turnover in the top executive increases dramatically following the takeover, but there is no difference in the rate of turnover between the hostile and friendly samples. Additionally, neither the pre-takeover market-adjusted nor the pre-takeover industry-adjusted returns are significantly different from each other. Thus, if pre-takeover corporate performance is a measure of the effectiveness of target management, classification of the takeovers according to whether they started as hostile or friendly does not distinguish disciplinary from nondisciplinary takeovers, at least not for our sample.

¹⁵One internal mechanism that controls management behavior is incentive-based compensation packages (Lewellen, Loderer, and Martin (1987); Baker, Jensen, and Murphy (1988)). A second is the board of directors (Coughlin and Schmidt (1985) and Weisbach (1988)).

We also present results that are broadly consistent with the hypothesis that competition for target firms does not depend on whether the motive for the takeover is discipline or synergy. Neither the fraction of multiple bidder contests nor the announcement period abnormal returns for bidders and targets are significantly different in takeovers classified as disciplinary and non-disciplinary. Further, the average excess stock returns to both bidders and targets over 41-day interval surrounding the takeover announcement are always positive and typically significantly different from zero. Thus, our results indicate that, regardless of the motivation, on average, tender offer-takeovers create value for the shareholders of the involved firms.

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